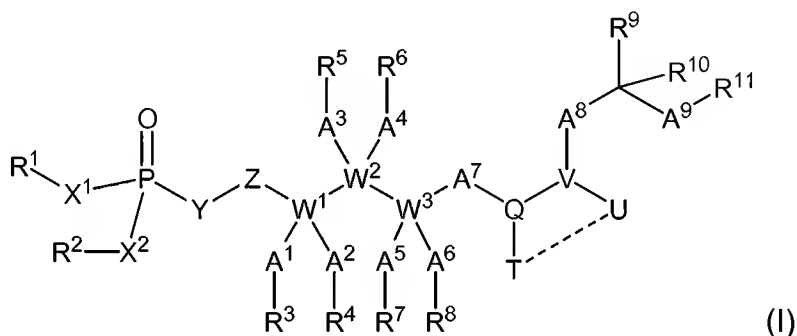


**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A compound having formula (I)



wherein the dashed line indicates a single or double bond, or is absent;

wherein  $R^1$  and  $R^2$  are each and independently selected from the group comprising consisting of -H and phospho protecting groups;

wherein  $X^1$  and  $X^2$  are each and independently selected from the group comprising consisting of -O-, -S-, -NR<sup>12</sup>-;

wherein Z is selected from the group comprising consisting of -O-[,], and -S-, -NR<sup>13</sup>-,  
(CR<sup>14</sup>R<sup>15</sup>)-;

wherein  $A^1, A^2, A^3, A^4, A^5, A^6, A^7, A^8$  and  $A^9$  are each and independently selected from the group ~~comprising~~ consisting of  $-O-$ ,  $-S-$ ,  $-NR^{16}-$ ,  $-S(O)-$ ,  $-S(O_2)-$ ,  $-C(O)-$ ,  $-C(S)-$ ,  $-NR^{17}-C(O)-$ ,  $-NR^{18}-C(S)-$ ,  $-NR^{19}-C(O)-NR^{20}-$ ,  $-NR^{21}C(S)-NR^{22}-$ ,  $-NR^{23}-S(O)-$ ,  $-NR^{24}-S(O_2)-$ , and  $-NR^{25}-C(O)-O-$ , or are each and independently from each other absent;

wherein  $A^7$  is  $-C(O)-$ ,  $-C(S)$  or  $CH_2$ ;

wherein  $W^1, A^1, A^2, R^3$  and  $R^4$  are absent;

wherein Y is selected from the group ~~comprising~~ consisting of  $-O-[.,]$  and  $-CR^{26}R^{27}-$ ;

wherein Q is  $\begin{array}{c} | \\ -N- \end{array}$  and V ~~is~~ are ~~each and independently selected from the group~~   
 ~~comprising~~  $\begin{array}{c} | \\ \diagdown \text{CR}^{28} \end{array}$  and  $\begin{array}{c} | \\ -N- \end{array}$ ;

wherein  $[[W^1,]] W^2$  and  $W^3$  ~~are each and independently selected from the group~~   
 ~~comprising~~  $\begin{array}{c} | \\ \diagdown \text{C}- \end{array}$  and  $\begin{array}{c} | \\ -N- \end{array}$ ;

wherein  $R^3, R^4, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}, R^{17}, R^{18}, R^{19}, R^{20}, R^{21}, R^{22}, R^{23}, R^{24}, R^{25}, R^{26}$ , and  $R^{27}, R^{28}, T$  ~~and U~~ are each and independently selected from the group ~~comprising~~ consisting of  $-H$ , halo, alkyl, ~~substituted alkyl~~, straight alkyl, ~~substituted straight alkyl~~, branched alkyl, ~~substituted branched alkyl~~, alkenyl, straight

alkenyl, ~~substituted straight alkenyl~~, branched alkenyl, ~~substituted branched alkenyl~~, alkynyl, straight alkynyl, ~~substituted straight alkynyl~~, branched alkynyl, ~~substituted branched alkynyl~~, cycloalkyl, ~~substituted cycloalkyl~~, cycloalkenyl, ~~substituted cycloalkenyl~~, heterocyclyl, ~~substituted heterocyclyl~~, mono-unsaturated heterocyclyl, ~~substituted mono-unsaturated heterocyclyl~~, poly-unsaturated heterocyclyl, ~~substituted poly-unsaturated heterocyclyl~~, aryl, ~~substituted aryl~~, heteroaryl, ~~substituted heteroaryl~~, arylalkyl, ~~substituted arylalkyl~~, heteroarylalkyl, ~~substituted heteroarylalkyl~~, heterocyclylalkyl, ~~substituted and heterocyclylalkyl~~, or are each and independently from each other absent;

wherein  $R^{28}$  is -H, wherein the dashed line is a single bond;

wherein T is  $-\text{CH}_2-$ ;

wherein U is  $-(\text{CH}_2)_n-$ , wherein n is 3;

and ~~[[the]]~~ salts, hydrates, or solvates ~~and prodrugs~~ thereof.

2. (Currently Amended) The compound according to claim 1, wherein  ~~$W^1, A^1, A^2, A^3,$~~   $A^4, A^5, R^3,$  and  $R^4$  are absent; wherein  $R^5, R^6$  and  $R^7$  are -H; ~~wherein  $W^2$  and  $W^3$  is~~  
 ~~$-\text{C}-$ ;~~ ~~wherein preferably Z is either S or O, more preferably S;~~ and wherein preferably Y is  $-\text{CH}_2-$ ; ~~wherein preferably  $A^7$  is either  $-\text{C}(\text{O})-$  or  $-\text{CH}_2-$ ;~~ wherein both  $X^1$  and  $X^2$  are -O-; wherein  $A^8$  is  $-\text{C}(\text{O})-\text{O}-$  or  $-\text{NR}^{29}-\text{C}(\text{O})-$ , whereby the C-atom of the  $-\text{NR}^{29}-\text{C}(\text{O})-$  and  $-\text{C}(\text{O})-\text{O}-$  is covalently bound to V; and wherein  $R^{29}$  is -H or lower alkyl.

3. (Currently Amended) The compound according to claim 1, wherein  $[[W^1,]] W^2, A^4,$   
 $A^2, A^3, A^4, A^5, R^3, R^4, R^5,$  and  $R^6$  are absent; wherein  $R^7$  is -H; wherein  $W^3$  is  $\begin{array}{c} | \\ -C- \end{array}$ ;  
~~wherein preferably Z is either S or O, more preferably S; and wherein preferably Y~~  
~~is  $CH_2$ ; wherein preferably  $A^7$  is either C(O) or  $CH_2$ ; wherein both  $X^1$  and  $X^2$  are -O-;~~  
 wherein  $A^8$  is  $-C(O)-O-$  or  $-NR^{29}-C(O)-$ , whereby the C-atom of the  $-NR^{29}-C(O)-$  and  $-$   
 $C(O)-O-$  is covalently bound to V; and wherein  $R^{29}$  is -H or lower alkyl.

4. (Currently Amended) The compound according to claim 3, wherein  $R^8$  is -H and  
~~wherein preferably  $A^6$  is absent.~~

5. (Currently Amended) The compound according to claim 3, wherein  $A^6$  is selected  
 from the group ~~comprising~~ consisting of  $-NR^{17}-C(O)-$ ,  $-NR^{24}-S(O_2)-$ ,  $-NR^{25}-C(O)-O-$ , and  
 wherein  $R^8$  is selected from the group ~~comprising optionally substituted~~ consisting of  
 aryl-(lower alkyl), ~~optionally substituted heteroaryl-(lower alkyl), optionally substituted~~  
 aryl and ~~optionally substituted heteroaryl, preferably optionally substituted phenyl,~~  
~~optionally substituted phenyl-(lower alkyl) and more preferably 1-acetylamino-2-~~  
~~benzo[b]thiophen-3-yl-ethyl; dihalo-benzylsulfanylethyl, monohalo-benzylsulfanylethyl,~~  
~~4-(monohalo-phenyl)-4-oxo-butyl, 4-(dihalo-phenyl)-4-oxo-butyl; benzo[1,3]dioxol-5-~~  
~~ylmethyl,~~ wherein  $R^{17}$ ,  $R^{24}$  and  $R^{25}$  are each and independently selected from the group  
~~comprising~~ consisting of -H and lower alkyl.

6-7. (Cancelled).

8. (Currently Amended) The compound according to claim [[4]] 1, wherein R<sup>9</sup> is -H and wherein R<sup>10</sup> is selected from the group ~~comprising substituted~~ consisting of lower alkyl, ~~preferably aryl-(lower-alkyl), heteroaryl-(lower-alkyl), cycloalkyl-(lower-alkyl), heterocyclyl-(lower-alkyl), and more preferably optionally substituted 2-naphthalen-2-yl-ethyl, optionally substituted naphthalen-2-ylmethyl, optionally substituted 2-phenyl-ethyl, optionally substituted 2-phenyl-methyl, optionally substituted quinolin-7-ylmethyl, and optionally substituted 3-isoquinolin-7-ylmethyl.~~

9. (Currently Amended) The compound according to claim 4 wherein A<sup>9</sup> is -NH-C(O)- or NH-C(S)-, whereby the N-atom of each of -NH-C(O)- and NH-C(S)- is covalently bound to R<sup>11</sup>, and wherein R<sup>11</sup> is selected from the group ~~comprising~~ consisting of -H, ~~optionally substituted alkyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, preferably optionally substituted lower alkyl or -H, and more preferably optionally substituted tert-butyl or optionally substituted isopropyl.~~

10. (Currently Amended) The compound according to claim 4, wherein A<sup>9</sup> is absent and wherein R<sup>11</sup> is selected from the group ~~comprising optionally substituted~~ consisting of alkyl, ~~optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocyclyl, preferably optionally substituted phenyl, optionally substituted thiazol-2-yl, optionally substituted pyridyl and optionally substituted [1,3,4]oxadiazol-2-yl, optionally substituted 4H-[1,2,4]triazol-3-yl.~~

11. (Previously Presented) The compound according to claim 4 wherein both R<sup>1</sup> and R<sup>2</sup> are -H.

12. (Currently Amended) The compound according to claim 4, wherein R<sup>1</sup> and R<sup>2</sup> are each a phospho protecting group, ~~whereby preferably R1 and R2 are each and independently selected from the group comprising 2,2-dimethyl-propionyloxymethyl, isopropoxycarbonyloxymethyl, and 2-acetylsulfanyl-ethyl.~~

13. (Currently Amended) A compound, ~~preferably a compound according to claim 1,~~ selected from the group ~~comprising~~ consisting of

{2-(2-Acetylamino-3-benzo[b]thiophen-3-yl-propionylamino)-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propoxymethyl}-phosphonic acid  
 {2-(2-Acetylamino-3-benzo[b]thiophen-3-yl-propionylamino)-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid,

{2-(2-Acetylamino-3-benzo[b]thiophen-3-yl-propionylamino)-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid,

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-(9H-fluoren-9-ylmethoxycarbonylamino)-3-oxo-propoxymethyl]-phosphonic acid,

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[3-(4-chloro-benzylsulfanyl)-propionylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid,

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[3-(3,4-dichloro-benzylsulfanyl)-propionylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[5-(4-chloro-phenyl)-5-oxo-pentanoylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(5-phenyl-pentanoylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{2-(3-Benzo[b]thiophen-3-yl-2-{6-[5-(-2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)-benzoic acid)-ureido]-hexanoylamino}-propionylamino)-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[2-(2,5-dioxo-imidazolidin-4-yl)-acetylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-(2-cyclohexyl-acetylamino)-3-oxo-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-[(2-oxo-thiazolidine-4-carbonyl)-amino]-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

(3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-[[2-oxo-3-(2-oxo-thiazolidine-4-carbonyl)-thiazolidine-4-carbonyl]-amino]-propylsulfanylmethyl)-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(3-phenoxy-benzoylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-[(1,2,3,4-tetrahydro-naphthalene-2-carbonyl)-amino]-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(3-thiophen-2-yl-propionylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-(9H-fluoren-9-ylmethoxycarbonylamino)-3-oxo-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{2-{3-Benzo[b]thiophen-3-yl-2-[(piperidine-4-carbonyl)-amino]-propionylamino}-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[3-Benzo[b]thiophen-3-yl-2-(2-piperazin-1-yl-acetylamino)-propionylamino]-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-Benzoylamino-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-phenylacetylamino-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(3-phenyl-propionylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(4-phenyl-butyrylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{2-(2-Biphenyl-4-yl-acetylamino)-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-(2-Acetylamino-3-benzo[b]thiophen-3-yl-propionylamino)-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

Ac-Bta-Cys(CH<sub>2</sub>-P(O)(OH)<sub>2</sub>)-NMeazaAla-2Nal-NH<sub>2</sub>



~~Ac-Bta-Cys(CH<sub>2</sub>-P(O)(OH)<sub>2</sub>)-NMeazaGly-2Nal-NH<sub>2</sub>~~

{2-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-oxo-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-Acetylamino-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-Benzoyloxycarbonylamino-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-phenylmethanesulfonylamino-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-[(1-phenyl-cyclopentanecarbonyl)-amino]-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[2-(2-chloro-phenyl)-acetylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[2-(4-chloro-phenyl)-acetylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[2-(4-methoxy-phenyl)-acetylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[4-(4-chloro-phenyl)-4-oxo-butyrylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[4-(4-methoxy-phenyl)-butyrylamino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-[(5-oxo-pyrrolidine-2-carbonyl)-amino]-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[(Benzofuran-2-carbonyl)-amino]-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(2-piperazin-1-yl-acetylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{2-[(3-Acetyl-2-oxo-thiazolidine-4-carbonyl)-amino]-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-isobutoxycarbonylamino-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-Butoxycarbonylamino-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-methoxycarbonylamino-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-phenoxy carbonylamino-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-phenethyloxycarbonylamino-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-Benzenesulfonylamino-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(2-phenylethanesulfonylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(3-phenylpropane-1-sulfonylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-methanesulfonylamino-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(2,4,6-trimethyl-benzenesulfonylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(thiophene-2-sulfonylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

[3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-(3-piperidin-1-yl-propionylamino)-propylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{2-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-(2-Benzo[1.3]dioxol-5-yl-acetyl-amino)-3-[2-(1-carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[2-(3,5-dimethoxy-phenyl)-acetyl-amino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[2-(2-methoxy-phenyl)-acetyl-amino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[2-(2-Naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-oxo-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[2-Oxo-2-(2-phenylcarbamoyl-piperidin-1-yl)-ethylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-[2-(3-methoxy-phenyl)-acetyl-amino]-3-oxo-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{3-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-3-oxo-2-[2-(4-piperazin-1-yl-phenyl)-acetylamino]-propylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[2-(1-tert-Butylcarbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-oxo-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[2-(1-Methylcarbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-oxo-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-1-methyl-2-oxo-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

[2-(2-Benzylcarbamoyl-piperidin-1-yl)-2-oxo-ethylsulfanylmethyl]-phosphonic acid<sub>1</sub>

[2-Oxo-2-(2-phenethylcarbamoyl-piperidin-1-yl)-ethylsulfanylmethyl]-phosphonic acid<sub>1</sub>

{2-Oxo-2-[2-(3-phenyl-propylcarbamoyl)-piperidin-1-yl]-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-1-methylcarbamoylmethyl-2-oxo-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[2-(1-Carbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-1-[(4-methoxy-phenylcarbamoyl)-methyl]-2-oxo-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

{2-[2-(1-tert-Butylcarbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

2,2-Dimethyl-propionic acid {2-[2-(1-tert-butylcarbamoyl-2-naphthalen-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-oxo-ethylsulfanylmethyl}-(2,2-dimethyl-propionyloxymethoxy)-phosphinoyloxymethyl ester<sub>1</sub>

{2-[2-(2-Naphthalen-2-yl-1-phenyl-ethylcarbamoyl)-piperidin-1-yl]-2-oxo-ethylsulfanylmethyl}-phosphonic acid<sub>1</sub>

(2-{2-[1-(4-Methyl-thiazol-2-yl)-2-naphthalen-2-yl-ethylcarbamoyl]-piperidin-1-yl}-2-oxo-ethylsulfanylmethyl)-phosphonic acid,<sub>1</sub>

{2-[2-(2-Naphthalen-2-yl-1-[1,3,4]oxadiazol-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-oxo-ethylsulfanylmethyl}-phosphonic acid,<sub>1</sub>

(2-{2-[2-Naphthalen-2-yl-1-(4H-[1,2,4]triazol-3-yl)-ethylcarbamoyl]-piperidin-1-yl}-2-oxo-ethylsulfanylmethyl)-phosphonic acid,<sub>1</sub>

{2-[2-(2-Naphthalen-2-yl-1-pyridin-2-yl-ethylcarbamoyl)-piperidin-1-yl]-2-oxo-ethylsulfanylmethyl}-phosphonic acid,<sub>1</sub>

and salts, hydrates and solvates thereof ~~as well as pro drugs thereof~~.

14. (Currently Amended) A pharmaceutical composition comprising [[a]] the compound ~~according to~~ of claim 1 and a pharmaceutically acceptable carrier, diluent or excipient.

15. (Original) The pharmaceutical composition according to claim 14 comprising a further pharmaceutically active compound.

16. (Previously Presented) The pharmaceutical composition according to claim 14, wherein the compound is present as a pharmaceutically acceptable salt or a pharmaceutically active solvate.

17. (Previously Presented) The pharmaceutically active composition according to claim 14, wherein the pharmaceutically active compound is either alone or in

combination with any of the ingredients of the composition present in a multitude of individualized dosages and/or administration forms.

18. (Cancelled).

19. (Withdrawn-Currently Amended) ~~Use of a compound for the manufacture of a medicament for the treatment of~~ A method of treating a disease, ~~whereby wherein~~ the disease involves one or more of an abnormal cell proliferation, an undesired cell proliferation, an abnormal mitosis, and/or an undesired mitosis in a patient,

~~whereby comprising administering the compound is a compound according to~~ of claim 1 to said patient.

20. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 19, wherein the compound is ~~acting on~~ administered in an amount effective to inhibit an enzymatic activity involved in the regulation of cell division and/or cell cycle or part thereof, ~~preferably the part of the cell cycle is mitosis.~~

21. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 19, wherein the disease is selected from the group ~~comprising~~ consisting of a neurodegenerative ~~diseases~~ disease, stroke, ~~an~~ inflammatory ~~diseases~~ disease, ~~an~~ immune based disorders disorder, ~~an~~ infectious ~~diseases~~ disease, ~~a~~ heart ~~diseases~~ disease, ~~a~~ cardiovascular ~~diseases~~ disease, and ~~a~~ cell proliferative ~~diseases~~ disease.

22. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 21, wherein the neurodegenerative disease is selected from the group ~~comprising~~ consisting of Alzheimer's disease, Huntington's disease, Parkinson's disease, peripheral neuropathy, progressive supranuclear palsy, corticobasal degeneration, frontotemporal dementia, synucleinopathies, multiple system atrophy, amyotrophic lateral atrophy, prion diseases, and motor neuron diseases.

23. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 21, wherein the infectious disease is selected from the group ~~comprising~~ one or more of fungal, viral, bacterial, ~~and~~ or parasite infection.

24. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 23, wherein the fungal infection is selected from the group ~~comprising~~ consisting of gynaecological and dermatological infection.

25. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 23, wherein the fungal infection is caused by or involves *Histoplasma*, *Coccidioides*, *Cryptococcus*, *Blastomyces*, *Paracoccidioides*, *Aspergillus*, *Sporothrix*, *Rhizopus*, *Absidia*, *Mucor*, *Hormodendrum*, *Phialophora* Microsporium, Epidermophyton, *Rhinosporidium* or by a yeast, ~~preferably Candida or Cryptococcus~~.

26. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 21, wherein the infectious disease is selected from ~~or the fungal infection causes a disorder selected from the group comprising~~ consisting of ringworm, candidiasis, coccidioidomycosis, blastomycosis, aspergillosis, cryptococcosis, histioplasmosis, paracoccidiomycosis, zygomycosis, sporotrichiosis, mycotic keratitis, nail hair and skin disease, lobomycosis, chromoblastomycosis, and mycetoma.

27. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 23, wherein the bacterial infection is ~~selected from the group comprising infections caused by Gram-positive and by~~ or Gram-negative bacteria.

28. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 27, wherein the bacterial infection is caused by or involves *Staphylococcus*, *Clostridium*, *Streptococcus*, *Listeria*, *Salmonella*, *Bacillus*, *Escherichia*, *Mycobacteria*, *Serratia*, *Enterobacter*, *Enterococcus*, *Nocardia*, *Hemophilus*, *Neisseria*, *Proteus*, *Yersinia*, *Helicobacter* or *Legionella*.

29. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 21, wherein the infectious disease is ~~selected from or the bacterial infection causes a disorder selected from the group comprising~~ pneumonia, diarrhea, dysentery, anthrax, rheumatic fever, toxic shock syndrome, mastoiditis, meningitis, gonorrhea, typhoid fever, brucellis, Lyme disease, gastroenteritis, tuberculosis, cholera, tetanus ~~[[and]]~~ or bubonic plague.



30. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 23, wherein the viral infection is selected from the group ~~comprising~~ consisting of infections caused by or involving retrovirus, HIV, Papilloma virus, Polio virus, Epstein-Barr, Herpes virus, Hepatitis virus, Papova virus, Influenza virus, Rabies, JC, and encephalitis causing virus or hemorrhagic fever causing virus.

31. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 23, wherein the parasite infection is ~~selected from the group comprising~~ infections caused by or ~~involving~~ involves *Trypanosoma, Leishmania, Trichinella, Echinococcus, Nematodes, Classes Cestoda Trematoda, Monogenea, Toxoplasma, Giardia, Balantidium, Paramecium, Plasmodium, or Entamoeba.*

32. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 21, wherein the cell proliferative disorder is ~~selected from the group comprising~~ a neoplastic and or non-neoplastic cell proliferative disorders disorder.

33. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 32, wherein the neoplastic cell proliferative disorder is selected from the group ~~comprising~~ consisting of solid tumor, lymphoma and leukemia.

34. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 33, wherein the solid tumor is selected from the group ~~comprising~~ consisting of carcinoma, sarcoma, osteoma, fibrosarcoma, and chondrosarcoma.

35. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 32, wherein the neoplastic cell proliferative disorder is selected from the group ~~comprising~~ consisting of breast cancer, prostate cancer, colon cancer, brain cancer, lung cancer, pancreatic cancer, gastric cancer, bladder cancer, and kidney cancer.

36. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 32, wherein the non-neoplastic cell proliferative disorder is a fibrotic disorder, ~~preferably the fibrotic disorder is fibrosis.~~

37. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 32, wherein the non-neoplastic cell proliferative disorder is selected from the group ~~comprising~~ consisting of prostatic hypertrophy, endometriosis, psoriasis, tissue repair, and wound healing.

38. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 21, wherein the immune based/inflammatory disease is an autoimmune disease or disorder.

39. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 21, wherein the immune based/inflammatory disease is ~~selected from the group comprising~~

rheumatoid arthritis, glomerulonephritis, systemic lupus erythematosus associated glomerulonephritis, irritable bowel syndrome, bronchial asthma, multiple sclerosis, pemphigus, pemphigoid, scleroderma, myasthenia gravis, autoimmune haemolytic and thrombocytopenic states, Goodpasture's syndrome, pulmonary hemorrhage, vasculitis, Crohn's disease, ~~[[and]]~~ or dermatomyositis.

40. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim ~~[[21]]~~ 19, wherein the ~~immune-based and/or inflammatory~~ disease is an inflammatory condition.

41. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim ~~[[21]]~~ 19, wherein the ~~immune-based and/or inflammatory~~ disease is selected from the group ~~comprising~~ inflammation associated with burns, lung injury, myocardial infarction, coronary thrombosis, vascular occlusion, post-surgical vascular reocclusion, arteriosclerosis, traumatic central nervous system injury, ischemic heart disease and ischemia-reperfusion injury, acute respiratory distress syndrome, systemic inflammatory response syndrome, multiple organ dysfunction syndrome, tissue graft rejection, ~~[[and]]~~ or hyperacute rejection of transplanted organs.

42. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 19, wherein ~~the medicament is for administration~~ said composition is administered via an administration route ~~which is selected from the group comprising~~ oral, subcutaneous, intravenous, intranasal, transdermal, intraperitoneal, intramuscular, intrapulmonar, vaginal, rectal, ~~[[and]]~~ or intraocular administration.

43. (Withdrawn-Currently Amended) The ~~use according to~~ method of claim 19, wherein the composition is administered ~~medicament is for the administration to a~~ mammal, ~~preferably to a human being.~~
44. (Cancelled)
45. (New) The compound of claim 1, wherein Y is -CH<sub>2</sub>- and A<sup>7</sup> is -C(O)- or -CH<sub>2</sub>-.
46. (New) The compound of claim 1, wherein A<sup>6</sup> is absent.
47. (New) The compound of claim 1, wherein R<sup>8</sup> is phenyl, 1-acetylamino-2-benzo[b]thiophen-3-yl-ethyl, dihalo-benzylsulfanylethyl, monohalo-benzylsulfanylethyl, -4-(monohalo-phenyl)-4-oxo-butyl, 4-(dihalo-phenyl)-4-oxo-butyl, or benzo[1,3]dioxol-5-ylmethyl.
48. (New) The compound of claim 1, wherein R<sup>11</sup> is phenyl, thiazol-2-yl, pyridyl, [1,3,4]oxadiazol-2-yl, or 4H-[1,2,4]triazol-3-yl.